

Patent Application of

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for

TITLE: FLARED-OPENING DRAWSTRING CLOSURE CELL PHONE CARRIER

CROSS-REFERENCE TO RELATED APPLICATIONS Not Applicable

FEDERALLY SPONSORED RESEARCH Not Applicable

SEQUENCE LISTING OR PROGRAM Not Applicable

BACKGROUND OF THE INVENTION—FIELD OF INVENTION

This invention is in the area of carriers for small personal items, especially for carrying items such as cell phones.

BACKGROUND OF THE INVENTION

Cell phones are relatively delicate electronic devices. However, little thought seems to be given by their designers to the transport and protection of cell phones. Whether for safety or convenience people want to keep their cell phone always handy. They are becoming small enough to carry within one's pocket, but

their displays and plastic panels are easily scratched by keys, etc. when carried in a handbag or pocket. An exception might be the clam shell type cell phones, which shut to hide the display and keypad. These are usually the most expensive variety of phone however, and are thus the least common type in use, and even for this type of cell phone the exterior of the cell phone can be easily scratched or marred.

Many varieties of cell phone carriers and cases have been patented or marketed, which provide some measure of protection and which usually facilitate carrying the cell phone. Additional features could also be desirable for a cell phone carrier. The following is a list of requirements one might evaluate a cell phone carrier against:

1. Provides scratch and abrasion protection, and possibly bump protection.
2. Has low cost of purchase relative to the cost of the phone.
3. Adds little bulk and provides for convenient and comfortable carrying in a variety of ways, such as in a trouser pocket or attached to one's person.
4. Engenders little or no compromise of cell phone functions.
5. Provides wide coverage of cell phone models, where applicable.
6. Provides for easy removal and insertion of the cell phone, where applicable.
7. Fashionable or at least not unattractive appearance, which is appropriate to multiple social situations.
8. Designed for easy and low-cost application of advertising indicia

Most people would agree with at least a few of these criteria. Some of the criteria don't apply to certain classes of cell phone carrier. For instance criteria 5 and 6 wouldn't apply to many custom cell phone carriers, which are designed to

enclose the cell phone even during use. Criterion 7 is only lately being recognized by the public as being of any importance. Criterion 8 probably isn't currently recognized at all by the public. However, criterion 8 is indirectly of benefit to a cell phone user in that he or she might receive a practical, attractive, and free cell phone carrier from a motivated advertiser. All cell phone carriers currently patented and/or marketed fall short on one or more of the above criteria.

Cell phone carriers might be classified into three categories. First would be those which are designed to permanently enclose the cell phone during transport and use. The second, and probably the largest class of cell phone carriers, would be those where the cell phone is removed for use. A third class could be adaptations of prior art which weren't specifically designed or targeted as cell phone carriers.

The class of cell phone carrier designed to permanently enclose the cell phone is generally designed for a specific model of cell phone. Because of this no examples were found of patents in this category. This type of cell phone carrier will hereafter be termed a custom cell phone carrier.

For the subcategory of custom cell phone carriers which are designed to permanently enclose the phone, ease of removal doesn't fully apply. However, when it does become necessary to remove the carrier, one might find the plastic window fused to the cell phone display. Also these permanently enclosing carriers all compromise the cell phone function to some degree. Plastic windows smudge and become hazy. Orifices and windows become mis-aligned, and this problem will be compounded when a cell phone with an integrated camera is involved.

Of the remaining criteria that apply, custom cell phone carriers generally provide scratch protection. They also facilitate carrying through a clipping means, although the position of carrying when clipped to one's person is not comfortable or stylish. If worn on the hip the carrier is easily bumped, such as on door jams. If worn at one's front, it will press into one's stomach when sitting. If worn at one's back, the carrier is highly likely to be sat upon. Wherever it is worn it will make a lump under a business suit, or clash with fashionable or formal attire. Where it applies, cell phone removal and insertion is generally adequate. However, cell phone carriers in this class do not satisfy the remaining criteria. Their cost is high relative to the cost of cell phones, and this is especially obvious when a cell phone is provided free along with a cell phone service contract. The fact that this type of cell phone carrier works only for a single model of cell phone can still be viewed as a negative even though it is by design. This becomes apparent when a change of cell phone service provider requires obtaining a new cell phone of a different model. Custom cell phone carriers also add an unacceptable amount of bulk, which will be noticeable when carrying within a trouser pocket for instance. This is true even when an integrated clipping means is removable.

Custom cell phone carriers are almost uniformly made from leather or leather-like material, with multiple panels sewn together. The carrier itself is not attractive or fashionable, especially in a business or formal setting. Also this type of construction is not inexpensive, or otherwise suitable for imprinting of indicia, and hence for use as an advertising vehicle.

The second broad category of cell phone carriers are those which do not

permanently enclose the cell phone. These carriers are usually of a clip, holster or pouch type of construction. Numerous patents were found of cell phone carriers fitting into this category. Some relatively distinctive items were also found being marketed, for which a corresponding patent wasn't located.

Some examples of relatively primitive cell phone carriers were found, which probably only satisfy a few of the requirements listed above. Examples are patents 5,535,928, 6,006,969, and 6,076,789. These all provided no real scratch protection. They do facilitate carrying on one's person. However the position of carrying, like almost all conventional cell phone carriers, would be cumbersome and unattractive. Further these cell phone carriers are hardly attractive or suitable for business or formal settings. Patent 6,006,969 illustrates a problem observed with many "generic" cell phone carrier designs. This is that the physical fit for any given cell phone will likely be a compromise. For most phones the fit will be either too loose or too tight. This design is further not likely to be cheaply manufacturable. Also these carriers would add too much bulk to allow comfortable carrying in a trouser pocket. Lastly, these cell phone carriers are clearly not suitable for imprinting of indicia, logos, or advertising promotions.

Numerous instances of holster-like cell phone carriers were found , and while these cell phone carriers vary in construction and shape, they can be considered as a group according to the requirements listed above. They are as follows : 5,351,868, 5,511,704, 5,833,100, 5,850,954, 5,897,040, 5,947,359, 5,957,357, US6,182,878B1, US6,315,182B1, US6,330,430B1, US6,367,672B1, US6,454,146B2, US6,478,205B1, US6,533,150B1, US6,651,854B1. These cell

phone carriers are subject to many of the same criticisms as the class of custom cell phone carriers. They are not likely to be low cost. Being constructed of stiff material, they will provide a compromised physical fit for any given cell phone. They are not suitable for very high volume production, or for imprinting of indicia and advertising. They add too much bulk for comfortable carrying in a trouser pocket. They are not fashionable or appropriate for business or formal settings, and the location of the carrier on one's person is likely to be uncomfortable, unattractive, and cumbersome.

A few patents were found which closely resembled the holster-like group above. However, these designs differed in the way they were carried on the person. Patent 5,653,336 provides for carrying on one's torso, and patent US6,568,576B1 provides for carrying around a shoulder strap. The criticisms on comfort and convenience in all body positions, and on inappropriateness for business and formal settings still apply to these designs. All other criticisms from the previous paragraph apply to these designs as well.

A class of patents was found for cell phone carriers, which attempt to address the requirement for being fashionable and business-appropriate, some of which were design patents. These are: Des.368,800, Des.377,117, Des.382,996, Des.416,132, 6,123,240, and US6,227,361B1. A product called "PDA Cell Phone Semi-hard case", marketed by Cellphone-Accessories.com could also fit into this category. These designs would still not be appropriate to all social settings and to all genders, and the above criticism of comfort and convenience in all body positions still applies. The problems of being relatively costly, and being too bulky

to comfortably carry in a trouser pocket applies as well. Lastly, while some of these designs illustrate artwork or decorations, the manufacturing materials involved aren't suited to high volume and low-cost imprinting with indicia. A further criticism of the "PDA Cell Phone Semi-hard Case" is of the magnetic closure. Placing a magnet very near a cell-phone can interfere with the electrical functions of the phone, even after the cell phone has been distanced from the magnet.

Many custom and non-custom cell phone carriers were found being marketed on the Internet. Most were variations on the designs discussed above. A few were distinctive enough to merit some discussion here.

Some cell phone pouches were found, which are targeted at the female market, and which try to address the need to be fashionable and attractive in certain social settings. One of these is the "Poire Pouch", found in the Northwest Life section of the Dec. 12, 2003 Seattle Times. This product is reported as being imported from Japan. This design while appropriate to some social settings, would not be for all, and would likely not be appropriate for use by men. While the product is decorated, it does not feature and would not be suited for low-cost and easy imprinting of advertising indicia. The design likely provides a compromised physical fit for many cell phone models. The design also appears to add enough bulk to make it uncomfortable to carry in a trouser pocket. A similar product, called "The Cell Phone Pouch by Priscilla Hewitt" was found at members.aol.com/crochetalong/cellpouch.htm. The same criticisms apply to this product, as to the "Poire Pouch".

The "R-Bag Hi-Tek Phone Pouch" is a carrier made of nylon rather than of

leather. It was found at www.asisupplier.com. It is advertised as affording advertising indicia but mainly for premium employee gifts, and not for very high volume and very low cost assembly and imprinting of indicia such as would be required for use in advertising campaigns. While the possible variation in materials could make this design more business appropriate, it would still not likely be appropriate to formal settings. This design would also fail the tests of adding bulk, on comfort and convenience of carrying, and non-compromised physical fit for all cell phone models.

The "Travel Phone Pouch" by GO Products, found at www.menda.co.au bears some similarity to the design in the previous paragraph. However, it does not feature advertising indicia and would fail on the other criteria that design fails on.

The TimBuk2 Designs "Cell Phone Pouch" found at www.bikeworld.com, is a pouch-type carrier. While the material of construction and available colors address the issue of being business-appropriate. This design is likely not suitable for formal settings. As a one-size-fits-all product, it would likely be a compromise fit for many cell phone models. The material of construction while not stiff, does not seem to be fully pliant. This along with the wide strap could add appreciable bulk and entail discomfort when carrying in a trouser pocket. This design further does not lend itself to imprinting of advertising indicia.

The "Possum Pam" Mobile Phone Pouch by Cybersales (NZ) Limited, found at www.nzgifts-souvenirs.co.nz/mobile-phone-pouch.htm, is a draw-string pouch knit of possum wool. The wool knit material of this design would not be appropriate

in formal social settings. Also this material would not lend itself to imprinting with advertising indicia. Further, being a conventional draw-string bag, it could prove difficult to extract the cell phone from the bag, especially when in a hurry to answer a possibly important call.

"The Trapaziod Phone Pouch" found at www.kreiser.net, is a cell phone carrier targeted towards the outdoors person. It is made of thick waterproof material, intended to protect a cell phone from bumps and weather. Due to the waterproofing, this material is not likely suited for easy and low-cost imprinting of advertising indicia. Also the thickness and bulk of this carrier would not allow it to be comfortably carried in a trouser pocket. It would likely provide a compromised physical fit for many cell phone models. It would not be suited to business and formal social settings, and like the holster-like cell phone carriers discussed above, it would be unattractive and uncomfortable when carried in certain body positions.

Having surveyed the field of conventional cell phone carriers, and found each design or product deficient in one or more of the criteria listed at the beginning of this section, other areas of prior art not specifically concerned with cell phone carriers were investigated. No prior art was found which would be readily adaptable as a cell phone carrier, through obvious and non-novel variations in design and/or intended purpose. Detailed discussions of the most closely related designs follow.

A likely place to look for applicable prior art was thought to be in the area of handbags. Patent US6,564,838B1 is typical of the handbag designs found. This is a design for a drawstring handbag. To adapt this design to become a cell phone

carrier capable of meeting the design requirements listed at the beginning of this section, several changes in design and purpose would have to be made. First it would have to be reduced in size to fit the proportions of a cell phone. The design of the bottom portion of the handbag would need to be changed from a rigid calabash-shaped section, and to be made from a highly flexible material. Other sections of the handbag would need to be made from highly flexible material, rather than from the heavy "durable" materials intended for US6,564,838B1. Similarly the method and material of construction would need to be modified to better promote very high volume, preferably automated, and very low cost assembly. Easy and very low cost imprinting of advertising indicia would need to be addressed as well. Further, multiple changes in the stated purpose of this design would need to be made. It would no longer be intended to carry multiple, and collectively relatively heavy, "personal effects", but rather a single small and light item. Much greater emphasis and attention to design details of the opening of the bag would be required to adapt it to the purpose of quickly removing a small item of nearly the same size as the bag itself. Also note the main stated purpose of this design is as a handbag, which commonly is used by the female population, and which is commonly carried by the hand or on the arm. Adaptation as a multi-purpose cell phone carrier would thus further require variation of the intended purpose of the design to serve the majority of both the male and female population, and would further need to provide for occasional carrying within a trouser pocket or attached to someone's person by a suitable attaching means.

Various patents which were referred to by US6,564,838B1 were investigated

as well. These are: 19,591, 115,541, 139,335, 595,685, 665,942, 2,253,688, 2,377,311. Like the referring patent, these earlier designs are focused on obtaining an enclosing bag of substantial strength and weight, for the specific purposes such as use as a mailbag or handbag. Also like US6,564,838B1 multiple non-obvious and novel changes would be required to adapt these designs for the purposes of a multi-purpose cell phone carrier.

Some other patents , not specifically in the area of handbags or mailbags, were found and merit some discussion. Patent 4,974,761 concerns a drawstring bag for carrying coins when in a gambling establishment. Patent 5,996,999 is a collector for game board pieces. Patent 4,608,283 is a reusable gift bag with a drawstring bow for closure. These items bear some resemblance to the handbag/mailbag family discussed above, and similar considerations apply to the likelihood of adapting them for the purposes of a multi-purpose cell phone carrier. These designs are intended for highly specific applications, and several variations of intended purpose, and of design and construction, would be required for adaptation as a cell phone carrier.

BACKGROUND OF THE INVENTION – OBJECTS AND ADVANTAGES

The cell phone carrier herein discussed is a subtle but powerful improvement on a drawstring bag, and adapted for use as a cell phone carrier.

FIG. 1 depicts a typical embodiment of the invention. This new design overcomes the drawbacks of prior art discussed earlier. In essence this design through one or more of its embodiments will meet all the requirements listed above for the ideal

cell phone carrier.

It will provide scratch and abrasion protection. One of its embodiments utilizes padded or quilted fabric, and thus would provide bump or impact protection as well. Another embodiment involves using water-repellant material, or applying water-repellant properties after assembly.

This invention will greatly facilitate carrying of cell phones, in a variety of ways. An embodiment with an integrated clipping means will allow attaching the cell phone carrier to a belt, belt loop, or strap. Since the attaching means isn't rigid or inflexible, the cell phone carrier will move with a person, and allow for comfortable carrying in any body position. Since the cell phone carrier will essentially conform to the shape of the cell phone, it will add almost no bulk, and will allow comfortable carrying within a trouser pocket. Again because of the low bulk of the carrier, it will allow for comfortable carrying beneath a business suit. Further, because the cell phone carrier is made from pliable material that will conform to the shape of a cell phone, it can be sized to accept a wide range of cell phone sizes with a minimum of compromise in fit.

Because this design entails removing the cell phone for use, it will in no way compromise the functional design of the cell phone. There will be no need to squint through filmy plastic windows or mis-aligned apertures to see the phone display or phone keys. Further, the flared mouth will enable quick and easy removal of the cell phone from the carrier. Ease of removal will be further accentuated with the embodiment of the invention which integrates handles at the mouth of the cell phone carrier. After use, the cell phone will be easily replaced

within the cell phone carrier as well.

Through one of its embodiments, this cell phone carrier will also address the requirement for a fashionable and attractive appearance. Through choice of colors and/or indicia, a version of the invention can be produced which will be appropriate for any social setting including business, formal, informal, and social situations. The various shapes of the carrier are distinctive and pleasing to the eye.

This invention will entail very low cost to manufacture, which will result in low cost to consumers. Materials and automated processes are now readily available to enable easy and low-cost imprinting of indicia, and to enable a highly automated assembly process. Wholesale cost will readily enable utilization of this cell phone carrier in very large scale advertising promotions.

DRAWINGS-- FIGURES

FIG. 1 shows a typical embodiment of the cell phone carrier, including advertising indicia and handles for easier opening.

FIGS. 2A to 2I show the details of assembly for the preferred embodiment of the cell phone carrier.

FIGS. 3A to 3I show the details of assembly for a second basic embodiment of the cell phone carrier.

FIGS. 4A to 4K show the details of assembly for a third basic embodiment of the cell phone carrier.

FIG. 5 shows a variation of the preferred embodiment which incorporates an identification badge holder

DETAILED DESCRIPTION - FIG. 1 - TYPICAL EMBODIMENT

FIG. 1 displays the typical embodiment of the cell phone carrier. It illustrates many of the most important advantages of the invention. The most distinctive advantage is the flared mouth of the cell phone carrier in the open position. It is clear that cell phone 61 can thereby be quickly removed and replaced, and that this will be facilitated by handles 62. Another distinctive benefit is the enabling of very low cost assembly and imprinting of indicia 63, due to the simplicity of the design of the bag 5. This feature will greatly facilitate employing the cell phone carrier in advertising campaigns, and which will benefit both advertisers and consumers. Also shown is a typical drawstring means 51 and clipping means 53, which will allow for easy and convenient carrying on one's person.

DETAILED DESCRIPTION - FIG 2A TO FIG 2I--PREFERRED BASIC EMBODIMENT

These figures depict assembly, as well as views of the final product for the preferred embodiment of the cell phone carrier. FIG. 2A shows two fabric panels, labeled 1 & 3, which have been cut to the appropriate shape. Fold lines 101, 103, 105 & 107 show where tabs will be folded over to serve as strain relief for the drawstring sleeve. If indicia have been attached, printed or woven into the panels 1 & 3, such indicia should be face down on the work surface.

Fig 2B shows the same panels 1 and 3, along with the tabs 201, 203, 205 &

207 which are formed by folding at the fold lines 101, 103, 105 & 107 from Fig 2A.

Fig 2C shows panels 1 and 3, now with the tabs folded flat. Also shown is placement of fold lines 109 & 111.

Fig 2D shows tabs 209 & 211, which are created by folding along fold lines 109 & 111 from 2C. Further shown in 1D is placement of the drawstring 51.

Fig 2E shows tabs 209 & 211 now folded flat and seams 301 & 303, where the tabs have been sewn to create drawstring sleeves attached to panels 1 & 3.

Fig 2F shows positioning of panel 1 beneath panel 3, in preparation for assembling the panels together into a single bag.

Fig 2G shows the assembled bag, now labeled 3, which is formed by sewing seams 305, 307 & 309 along the edges of the panels.

Fig 2H shows the finished product of the preferred embodiment, in the open position. The assembled bag from Fig 2G has been turned inside out to hide unfinished seams and edges. Now only the finished sides of the seams are visible. This step would also now reveal any advertising indicia being used for this cell phone carrier. The fully assembled bag is now labeled 5. Also shown in Fig 2H is clipping means 53, affixed to drawstring means 51, which can be used to attach the cell phone carrier to a belt or belt loop. The distinctive and attractive flared shape of the cell phone carrier mouth is now apparent in Fig 2H.

Fig 2I shows the cell phone carrier in the closed state.

Some additional remarks should be made about the assembly process depicted in Figs 2A to 2I. This represents only the logical and typical steps involved. This sequence may not be the most efficient from the standpoint of

standard manufacturing processes. Also, some means other than sewing could be used to assemble the cell phone carrier. For materials such as nylon, the seams might be formed by heat fusing rather than sewing. Additional finishing touches might be applied to achieve a higher quality product. An example would be to serge the seams to inhibit unraveling of the panel edges or fraying of the seams.

DETAILED DESCRIPTION—Fig3A THROUGH Fig 3I--SECOND BASIC EMBODIMENT

This sequence of Figs shows assembly of a cell phone carrier starting with a single panel of material, rather than the two panels discussed in the preferred embodiment. Other than that, this sequence process closely parallels that for the two panel process depicted in FIGS. 2A to 2I..

Fig 3A shows fold lines 115 & 117 on panel of material 11. As in the preferred embodiment, indicia if present should be on the side of panel 11 which is face down.

Fig 3B shows tabs 215 & 217 created by folding along lines 115 & 117 from Fig 3A.

Fig 3C shows tabs 215 & 217 now folded flat, and the location of fold line 119.

Fig 3D shows tab 219 created by folding along line 119 from Fig 3C. Also shown is the placement of drawstring means 51.

Fig 3E shows tab 219 now folded flat and sewn down with seam 311. Also shown is fold line 121.

Fig 3F shows the result of folding the left side of panel 11 along the fold line 121, and beneath the right side of panel 11.

Fig 3G shows the result of laying the folded panel flat and sewing seams 313 and 315 to create a bag from the single panel.

Fig 3H shows the result of turning the assembly from Fig 3G inside out. This embodiment of the cell phone carrier is seen to also have a distinctive and attractive asymmetrically flared shape. This embodiment can also integrate an attaching means 53 affixed to the ends of the drawstring means 51. The fully assembled bag is now labeled 13.

Fig 3I shows this embodiment of the cell phone carrier in the closed state.

Similar remarks to those at the end of the preferred embodiment section apply here as well. Those concerned variations in order of assembly, variations in means to assemble the material panels, and nicer finishing touches such as serging.

DETAILED DESCRIPTION - FIG. 4A TO FIG. 4K - THIRD BASIC EMBODIMENT

These figures illustrate the assembly and finished product for the third basic embodiment of the cell phone carrier. This embodiment is assembled from material which is stretchable. This allows the bag to be formed from a nearly rectangular material panel, rather than the shaped panels used for the preferred and second basic embodiments. In use, a means is then used to stretch the opening of the bag and at that point achieve a bag with a flared opening.

Fig 4A shows panel of material 21 which is stretchable. Fold lines 125 &

127 are also shown. As in previous embodiments, if indicia has been applied to panel 21, it should be face down.

Fig 4B shows tabs 225 & 227 formed by folding along lines 125 & 127 from Fig 4A.

Fig 4C shows tabs 225 & 227 now folded flat. Also shown is the location of fold line 129.

Fig 4D shows tab 229 which is created by folding along line 129 from Fig 4C. Also shown is the placement of "draw-wire" means 55. This analog of the drawstring from means the previous two embodiments, must in this case be of a stiff and uncompressable material, such as wire or perhaps stiff plastic.

Fig 4E shows tab 229 now folded flat over draw-wire means 55, and sewn down with seam 321. In this embodiment seam 321 must be a stretchable seam. In previous remarks about using alternate methods to sewing for assembling panels together, some additional thought would be given to fusing tab 229 to the rest of panel 21. An intermittent fused seam could be used, which would still allow the stretchable material to flex. Also shown is fold line 131.

Fig 4F shows the result of folding the left side of panel 21, along line 131 from Fig 3E, and beneath the right side of panel 21.

Fig 4G shows the result of laying the folded assembly flat and sewing seams 323 & 325 to form a single bag, now labeled 23. For this basic embodiment there is no need to use a stretchable seam, or intermittent fused seam, for seams 323 & 325. However these could be stretchable seams as well, which would afford a final assembly which could be stretched in all dimensions. This could yield a cell phone

carrier which was usable with a wider variety of cell phones.

Fig 4H shows the result of turning the assembly from Fig 4G inside out. Note this assembly does not now have a flared shape. Also shown is clipping means 57, slid over the ends of draw-wire 55. Clipping means 57 must have a means of easily engaging and dis-engaging the clip action. As with previous embodiments, unfinished seams are now inside the cell phone carrier, and any indicia are now on the outside. The fully assembled bag section is now labeled 23.

Fig 4I shows clipping means 57 now slid down to the edge of the bag mouth, and being attached to the mouth of the bag with attachment means 59.

Fig 4J shows the finished version of this embodiment in the open state. When the bag is pulled open and clipping means 57 is engaged, the cell phone carrier now has the distinctive flared shape which will enable easy removal or insertion of a cell phone. Also shown is a typical attachment means 53, affixed to the ends of draw-wire 55, which will allow attachment to a belt or belt loop.

Fig 4K shows this embodiment of the cell phone carrier in the closed state. This is achieved by disengaging clipping means 57, and sliding it down the draw-wire 55 to close the cell phone carrier.

Similar remarks to those at the end of the preferred embodiment section apply here as well. Those concerned variations in order of assembly, variations in means to assemble material panels, and nicer finishing touches.